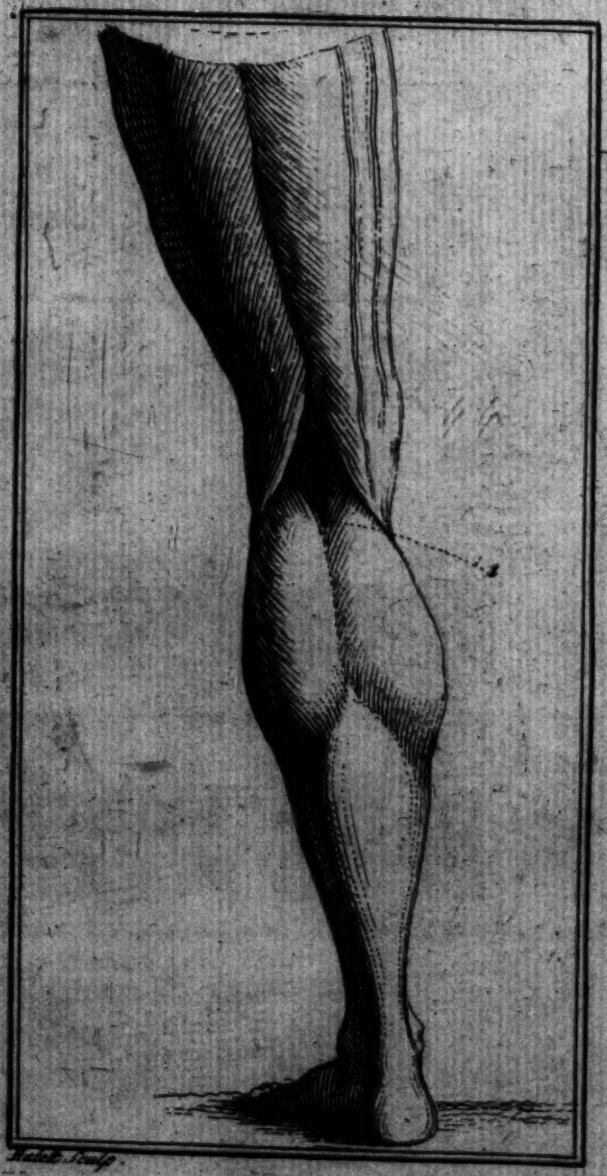

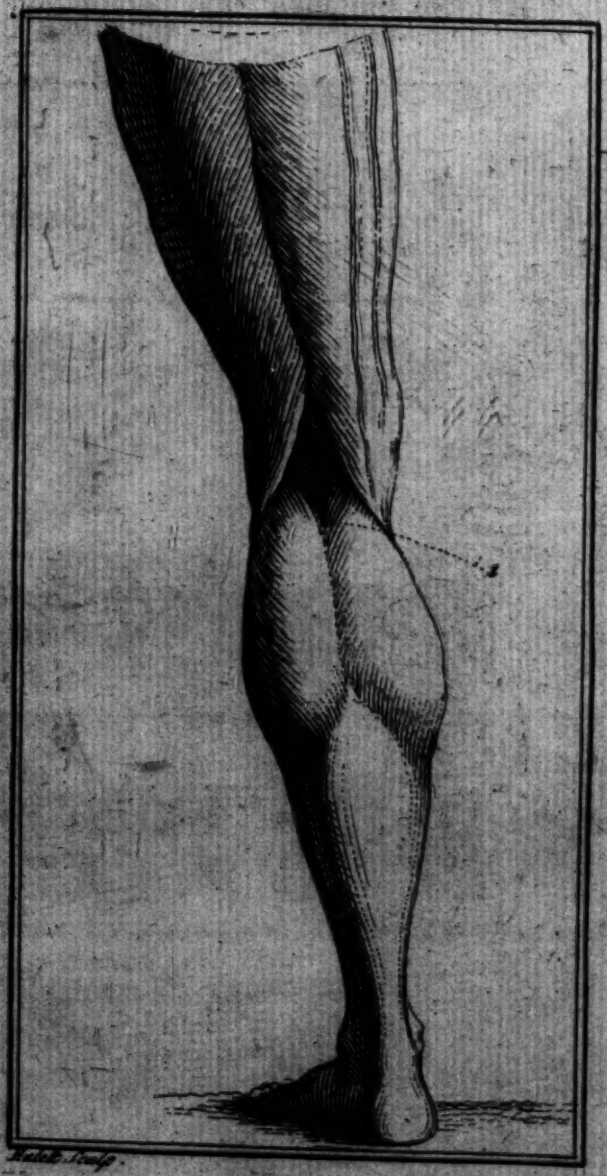

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AN ESSAY ON THE CAUSE and SEAT OF THE GOUT:

IN WHICH

The Opinions of ſeveral AUTHORS are conſider'd,

AND SOME

EXTERNAL OPERATIONS Recommended.

By *DALE INGRAM*, Surgeon.

De Morbi genio acutè judicare, eſt Medici; Medicamentorum formulas deſcribere, eſt cujuſvis ferè in Medicinâ Operarii. FREIND.

READING,
Printed by J. NEWBERY and C. MICKLEWRIGHT; and ſold by JACOB ROBINSON, at the *Golden Lion* in *Ludgate-ſtreet*, *London*; and by the Bookſellers in Town and Country. MDCCXLIII.

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Recommended.

TO

William Strode, Esq;

SIR,

YOUR publick Character, as a Senator, and *true* Patriot, is so well known, and so much admir'd by the

World already, that I forbear to enlarge on it, tho' in ſo doing I debar myſelf of no ſmall Pleaſure.

I AM confident, that were I to ſay never ſo much, and to play the Dedicator, I ſhould not be arraign'd of *Flattery*.

THE great Honour You do me, in employing me as Your Family Surgeon, the many other Favours You have conferr'd on me, make all that I can do, all

all that I can write, a *Debt*, not a Free-Offering.

If any thing here advanc'd may prove beneficial to Mankind in general, and to *Your Perſon* in particular, I ſhould think myſelf happy.

Whatever Motives have induc'd others to commence Writers, I ſhall not enquire; but this I can ſafely declare, that *Gratitude* was my firſt, and only Temptation.

That

THAT You may enjoy perfect Health, and Freedom from this painful Diſeaſe, is the ſincere Wiſh of,

SIR,

(With the utmoſt Reſpect)

Your moſt oblig'd,
moſt dutiful, and
moſt obedient Servant,

READING,
March 21,
1742-3.

DALE INGRAM.

PREFACE.

IT may be Matter of Surprize to find a Surgeon, and even a Country One, attempting to write on a Diſeaſe, which, at firſt Sight, ſeems to be entirely the Object of Phyſick: But when the Reader is convinc'd, that I lay the chief Streſs on three External Operations, which certainly come under the Province of Surgery, I flatter myſelf I ſhall meet with a favourable Reception.

I could not but remark, that the great Variety of Internal *Medicines, from* Aetius's *grand Dryer and annual Regimen, to this very Day, had made little or no Progreſs in the Cure of this Diſeaſe; and therefore concluded*

cluded within myſelf, that we could have no other Roſource, than to the Uſe of Externals, *which being intirely under our Command, and the Object of our Eye-ſight, promiſe a more certain Relief, or at* (a) *leaſt to do no Injury.*

IN humble and diſtant Imitation of that great Writer, the late Dr. John Freind, *I have follow'd the ſame Method with His, in a Treatiſe, intituled,* Emmenologia: *That is, by conſidering the various Opinions of ſeveral Authors concerning the Gout, before I took the Liberty to advance my own. No one, I hope, will inſinuate from what is ſaid, that I am ſo vain as to imagine my Performance, in any Degree, equal to His maſterly Manner.*

(a) Oportet Medicum tentare duo, vel prodeſſe, vel ſaltem non nocere. *Hipp.*

NO,

NO, on the contrary, I preſume not to ſet myſelf up for an Original Writer; Subjects of all Kinds have been treated of by the Learned and the Ignorant. —— I pretend not (to uſe a great Man's Words) to think, that like a Spider *I can work all Things out of my own Bowels; it is enough for me to avoid the Character of a Plagiary. If by Reflection I have ſo aſſimilated the Thoughts of different Authors to mine, that at laſt they have appear'd as produc'd by my own Conceptions; if I have imitated the* Bee, *who forms, from different Flowers and different Mixtures, one ſimple unmix'd Sweet, I ſhall think myſelf extremely happy.*

IT is true, I have fixed the Seat of the Gout in that univerſal Integument, the Membrana adipoſa, *and lubricating Glands, which I apprehend has not hitherto been advanc'd*

by any preceding Writer; and this I hope will excite ſome modern Anatomiſts to enquire more ſtrictly into its Structure, &c. ſince even the moſt elaborate Profeſſor Winſlow (b) *declares plainly and ingenuouſly, that* "*the* "*Organ which ſeparates the Fat from* "*the Maſs of Blood,* is not as yet ſuf- "ficiently known.

AS no Man can live in this World without ſome Enemies, ſo, no doubt, various Reports and malicious Inſinuations will be current on my publiſhing this Eſſay.

ONE has attacked it even in its Embryo, charging me with ſtealing *from* One *who was always free to* give; *for it is ſaid that this Treatiſe was the late Dr.* Burd's. *But I need ſay no more in anſwer thereto, than that the Meanneſs of the Performance*

(b) *Vid.* Page 123. Sect. 7.

demonſtrates He *could have no hand in it.*

I F thro' the good Nature and Candour of my Brethren, and Mankind in general, this firſt Attempt of mine, which I have endeavour'd, as far as my Capacity allow'd, to deliver as poliſh'd as I could, ſhould meet with their Approbation, it will be a Motive and Encouragement once more to enter into the World on a Subject extreamly difficult (I think) and as yet not ſufficiently regarded, I mean that of Cancers; *wherein I ſhall endeavour to explain what Stages of that Diſeaſe are curable, and recite ſome Caſes wherein I have had Succeſs in this Neighbourhood, the which I apprehend will appear foreign to any Thing as yet advanc'd on the Subject.*

demonstrates. He could have no hand in it.

IF then the good Nature and Candour of my Brethren, and Manhood in general, this first Attempt of mine, which I have endeavour'd, as far as my Capacity allow'd, to deliver as polish'd as I could, should meet with their Approbation, it will be a Motive and Encouragement enterprize to enter into the World on a Subject extreamly difficult (I think) and as yet not sufficiently regarded, I mean that of Cancers; wherein I shall endeavour to explain what Stages of that Disease are curable, and prove some Cases wherein I have had Success in this Neighbourhood, the which I apprehend will appear Foreign to any Thing as yet ventured on the Subject.

demon

AN ESSAY ON THE CAUSE and SEAT OF THE GOUT.

I Flatter myſelf, that my preſent Attempt to inveſtigate the true Seat of that moſt painful and frequent Diſeaſe the Gout, may not only prove of Service to thoſe afflicted therewith, but alſo give Occaſion to ſome more able and learned Pen hereafter, to finiſh and compleat the Enquiry. For, as my Title expreſ-

ſes, I pretend not to aim at an abſolute and perfect Cure, nor have I any Noſtrums or Specificks to recommend. I ſhall ſit down happy with that ſmall Degree of Merit, which will attend, I hope, the *Palliation* of ſo obſtinate a Diſeaſe.

THE fix'd Gout has been accounted incurable not only by Phyſicians, but Poets alſo could obſerve this; for we find *Ovid*, almoſt eighteen hundred Years ago, very expreſs on this Head,

Tollere nodoſam neſcit Medicina Podagram (*a*).

BUT though this Diſtemper is mention'd by the earlieſt Writers in Phyſick, and has probably infeſted the human Body throughout all Ages, (and Theirs more particularly who are moſt capable of paying for its

(*a*) OVID, *De Ponto*, Lib. I. 3. 23.

Cure, it being obſerved to attend chiefly on the Rich, who by feeding on ſuch Aliment as abounds with oily urinous Salts, and drinking freely of tartarous Wines, ſeem to invite its Acceſs,) yet I am ſorry to find ſo little Progreſs has hitherto been made, either in aſcertaining the Cauſe, or propoſing a perfect Remedy or Method of Cure; ſince all that has hitherto been deliver'd or written on this Subject, has fail'd of giving that Satisfaction which, as a Friend to Mankind, I could have wiſhed.

AUTHORS indeed are ſo far from having diſcover'd a *Cure*, that they are not in the leaſt agreed as to the Cauſe of this ſevere Malady, no nor even from what Part of the animal Syſtem the gouty Matter takes its Origin.

I SHALL begin by examining, with

the utmoſt Candour and Deference, the Opinions of ſeveral authentick Writers on this Subject, which, I believe, will be agreeable to the Reader.

The learned and judicious *Ambroſe Parey (a)*, firſt Surgeon to *Henry* the Third of *France*, and to two of his Succeſſors, in his Book of the Gout, declares, "That the Humour cauſing "the Gout is not of a more known, "or eaſily expreſs'd Nature, than "that which cauſeth the Plague, "*Lues Venerea*, or Falling Sickneſs. "It is of a Kind and Nature clear "different from that which cauſeth a "*Phlegmon*, *Oedema*, *Erysipelas*, or "*Scirrhus*; for, as *Aetius* ſaith, it "never cometh to Suppuration like "other Humours, not for that, as I "think, becauſe it happens in blood-

(b) *Vide Johnſon's* Tranſlation of *Parey*, p. 414.

"leſs

" leſs Parts, but through the Occaſion " of ſome occult Malignity.

Our Author goes on to obſerve, that the Humours which cauſe the forementionʼd Tumours, not even when they are turned into *Pus*, or Matter, do cauſe ſo ſharp Pains, as doth the Gout; for he aſſerts, that " the Pain thereof is far more ſharp " than of that Humour which cauſ- " eth *an ulcerated Cancer*." But I apprehend, with all Submiſſion to this great Man, that this laſt Compariſon is exaggerating the Pain, bad as it is, to too great a Degree, ſince certainly the Humour of an ulcerated Cancer has been found ſo malignant, that one of our Profeſſion paid very dear for his Curioſity in taſting it, even the Loſs of his Life. And all Authors agree, that when a Cancer is once ulcerated, it is then become not only incurable, but defies even a palliative Method.

Dr. *Tur-*

Dr. *Turner* has ſomewhere or other ſtumbled on a bitter Deſcription of a Cancer, "*Si aliquem odis ac infæli-*
"*cem precas, nec Peſtem, nec Luem,*
"*nec Pandoræ pixidem, nec Poda-*
"*gram, nec Calculum, his omnibus*
"*omiſſis, ſi magis infælicem habeat*
"*Cancrum.*" You ſee this anonymous Writer gives the Preeminence of Pain and Miſery to the Cancer, to which I cannot avoid thinking it has too juſt a Title.

It is worthy our Obſervation how diffident, abſtruſe, and conjectural, both the great *Greek* Phyſician *Ætius*, and the great *French* Surgeon *Parey* are, when they are obliged to reſt contented with a *Negative*, telling us that the gouty Matter reſembles not other Humours, but are endued with ſome *occult Malignity*.

They have never ſo much as pretended to tell us of what Nature the

Gouty

Gouty Matter is, but by this obſcure Account we may infer, that, at this Time, they had no fixed Ideas of this Diſtemper; neither did Mr. *Parey* know what was really the Gout, as appears by the two Caſes he introduces *(pag.* 415.*)* where he ſays, the following Hiſtories will give much Light to the *inexplicable* and virulent Malignity of the Matter that cauſes the Gout.

THE Narrative runs thus: "Whilſt "King *Charles* the Ninth was at "*Bourdeaux*, there was brought to "*Chappellain* and *Caſtellan*, the "King's Phyſicians, and one *Taſte* "alſo, a Phyſician of *Bourdeaux*; "*(Nicholas Lambert* and myſelf, "Surgeons, being preſent) a Gentle- "woman about forty Years old, ex- "ceedingly troubled for many Years, "by reaſon of a Tumour ſcarce equal "in bigneſs to a Pea, and ſituated on "the outſide of the Joint of the

"Left

" Left Hip. One of her tormenting
" Fits took her in my Preſence,
" wherein the Agony was ſo violent,
" that you would have ſaid ſhe had
" been poſſeſſed of the Devil. In a
" Conſultation of the above Phyſi-
" cians and Surgeon, it was agreed to
" apply a potential Cautery to the
" Part aggrieved, which I myſelf ap-
" ply'd, and thereby freed the Wo-
" man of her Pain and Diſeaſe for e-
" ver after.

" The like Succeſs *(c)* I met with
" in the Caſe of the Wife of the
" Queen's Coachman at *Amboiſe*. Her
" Tumour, it is true, was ſituated
" on the Right Arm, the Torment of
" which was ſo intolerable as made
" her attempt to caſt herſelf headlong
" out of her Chamber Window; how-
" ever we judged that the like Mon-
" ſter was to be aſſaulted with the like

(c) Vid. Johnſon's Tranſlation of *Parey*, p. 415.

" Weapon

" Weapon *(i. e.* a potential Cautery) " neither were we deceived."

I HAVE taken the Pains to tranſcribe theſe two Caſes, with an Intent to ſhew, that even in Mr. *Parey*'s Time the Nature of the Gout was not ſufficiently underſtood, altho' many Authors before him have mention'd its Name; for if I may without Offence give my Opinion freely, neither of theſe two Caſes have the leaſt Appearance of the Gout: I ſhould judge them rather ſcirrhous, if not cancerous Tumours. It is true, the Situation in the firſt Caſe might induce one to look on it as a Sciatica, though I apprehend there is very little Foundation for ſo doing; but as to the latter, neither from its Situation, nor from its Symptoms, can it be ſtiled gouty.

THIS Author, following entirely the *Galenical* Syſtem, muſt neceſſarily be miſtaken in his Judgment, con-

cerning the Manner in which the gouty Matter is ſecreted from the Blood; for he ſays that it either proceeds from the Brain or from the Liver, both which Conjectures are abſurd and chimerical; for if the Matter was form'd in the Brain, it would either occaſion a paralytick Diſorder in ſome Part of the Body, by compreſſing the *Cerebellum*; or it might induce an Apoplexy, by *diſtending* the Blood-Veſſels, and thereby retarding the Circulation, or, which is worſe than all, by *burſting* their Coats, whence inevitably Death ſucceeds. As to the Liver *(d)*, I ſhall only obſerve, That this Author implicitly follow'd the *Galeniſts* in his Philoſophy and Ratiocination; nor indeed could he be blameable, when no other Manner of Reaſoning had been introduced; for to our incomparable Countryman, Sir *Iſaac Newton*, we owe the Diſco-

(d) Vid. Johnſon's Tranſl. p. 417.

very

very of the Laws of Nature, the Motion of the Fluids, and the Action of the Solids.

The ſecond I ſhall mention is the late famous Dr. *Willis* (*e*), in whoſe Time I apprehend a much more abſurd, myſterious, and unintelligible Theory prevailed, than that before mentioned, whereby they ſolved all Appearances and Diſtemperatures of the Animal Oeconomy. The *Gas* of one, the *Archæus* of another, the *ſalino-ſulphureous Acid* of a third, explained the moſt abſtruſe and difficult Points in Phyſick, till the Door was opened for introducing the preſent Standard of Philoſophy, I mean that of *mechanical Reaſoning*.

This learned Author informs us, that the Gout is produced by an *Acid* thrown from the Nerves, and a *fixed*

(*e*) *Willis de Arthritide.*

Salt in the Blood; from the Congreſs of which, he ſuppoſes there ariſes a Fermentation. But as no Anatomiſt to this Day has undertaken to demonſtrate, that there ſubſiſts any ſuch Thing as a *nervous Fluid*, no, not even that the Nerves themſelves are Tubes; we are not as yet ſo happy in our anatomical Diſcoveries, as to entertain any certain Ideas in what manner *Senſation*, of which the Nerves are avowedly the Inſtruments, is performed. No doubt, were the Nature of the Nerves and their Operations better underſtood and more clearly explain'd, a more ſatisfactory Account might be expected of the Cauſe of nervous Diſeaſes than any yet extant, and thereby a Way paved towards the Cure: So that the Doctor's amuſing Hypotheſis, of a nervous Acid producing the Gout, ſeems to have little or no Foundation; for can we with Reaſon ſuppoſe, that ſuch noble Organs, as the Nerves are, ſhould ſecrete ſuch

an Acid as in its own Nature muſt prove pernicious to the animal Structure? Nay, could we poſſibly admit that the Nerves do throw out an Acid by which the Gout is produced, then this Contradiction muſt follow, *viz.* That upon every Attack of this Diſtemper, the nervous and membranous Parts would be torn to pieces in a Degree proportionable to the Quantity of the Influx; which Human Nature could not ſuſtain.

Further give me Leave to obſerve, that then the Diſtemper would always be the ſame in every Perſon, allowing only for Age, Conſtitution, and various Degrees of Concretion: And laſtly, the Medicine, which proved effectual in one Perſon's Caſe, would have Succeſs comparatively in all, by reaſon the Matter would be always uniform, that is, compoſed of the ſame identical Principles.

SIGNIOR *Michele Pinelli* (*f*), in 1728, communicated a Diſſertation to our *Royal Society*, wherein he ſays, That it evidently appears how much thoſe muſt be miſtaken, who have hitherto aſſerted that the Cauſe of the Gout is a coagulating Acid exiſting in the Blood, ſince nothing of an Acid is found in any Part of the Body, but the Excrements of the Stomach and Inteſtines, as the following Examination demonſtrates. He aſſures us, that in order to diſcover the Nature and Cauſe of the Gout, he had, by various chymical Proceſſes, applied himſelf to diſſolve the ſeveral Parts of the human Body into their primitive or conſtituent Parts; and carrying the Experiments ſtill farther in extracting the Salts from the Stomach and Inteſtines, he conſtantly found a Salt not unlike Sea-Salt, and appearing upon

(*f*) *Vid. Philoſophical Tranſactions abridged*, Vol. VI. Part III. pag. 116.

Exa-

Examination to be a *perfect Acid*: But with all poſſible Art and Carefulneſs whatever, nothing of this *acid Salt* could be obtain'd from all the other ſolid or fluid Parts of the Body. Now as no one can diſpute the Veracity of the above-named *Pinelli*, nor his Ability in Chymiſtry, this will be a moſt convincing Proof that there can be no nervous Acid; and therefore what Dr. *Willis* has advanced on this Subject can have no real Foundation.

ANOTHER would have us believe that the Gout proceeds from a *Viſcidity* of the Blood, by which its Circulation is retarded; whence Obſtructions in the Veſſels enſuing, cauſe that Pain which ariſes from the Inflammation of the *Perioſteum*, *Tendons*, *Membranes*, &c. And that the Inflammation always bears an exact Proportion to the Degree of Obſtruction.

To

To this Opinion Dr. *Cheyne*, in his *Eſſay on the Gout*, (pag. 2.) ſeems to agree; where he ſays, "The Reaſon "why two Men, having all other "Circumſtances alike, or near as may "be, the one ſhall be afflicted with "the Gout, the other abſolutely free "from it, is this, That the Capilla-"ries of the gouty Perſon muſt be in "their natural Conformation narrow-"er than thoſe of the other who is "free from the Gout, in reſpect of "their common Stature and Size: "for thereby the crude and groſs Hu-"mours, which are confin'd or paſs "with Pain in the gouty Perſon, will "eaſily fly off by Perſpiration, and "the other Drains of the Body, in "the Perſon free from the Gout."

I APPREHEND the Doctor means, that in the Perſon free from the Gout, the Diameters of the ſmalleſt Veſſels being wider and leſs tenſe than in the other,

other, the gouty Matter would not be ſo likely to lodge in the Capillaries of the *free one.*

To ſuch-like Reaſoning as this, I anſwer, That the gouty Matter is not generated in the Blood: And this Propoſition I ſhall endeavour in the Sequel plainly to demonſtrate; for could we (*v. g.*) admit that the Matter was form'd in the Blood, the Conſequence muſt be, that it would be render'd too viſcid, too condenſed, in all Perſons to fly off by Perſpiration; neither could the Blood ſo thicken'd fill up any of its proper Veſſels, without introducing violent Diſorders through the whole Syſtem. For Example; ſuppoſe one of the arterial Tubes to be obſtructed by it in either Hands or Feet, the Conſequence would be, that the Part of the Limb, to which this elaſtic Tube ought by the Laws of Nature to convey Blood for its Nouriſhment and Well-being,

muſt fall into an Atrophy, becauſe its full Quantity of Nutriment is intercepted. But ſo far is it from being true in fact, that the Blood-Veſſels are fill'd with the gouty Matter, that the *Tophi* or gouty Chalk-Stones, of which this Diſtemper is too often productive, are never found in *thoſe Veſſels*, but always in the Interſtices of the Muſcles, Tendons, and Lubricating Glands.

That excellent Phyſician Dr. *Boerhaave (g)* obſerves, That Men of acute and deep Senſe, who exerciſe the ſame much, and become nocturnal Students, are more liable to the Gout than the common Race of Mankind; and that thoſe who are too much addicted to Acids ſeldom eſcape it. Again he ſays, That before this long hidden and lurking Diſeaſe ſhews itſelf in its repeated Paroxyſms, you

(g) *Vid. Boerhaave's Aphoriſms, Engliſh* Tranſlation, 1724. *pag.* 372, 373, 374.

may

may obſerve thoſe whom it invades afflicted with Crudities, Indigeſtions, Heavineſs, Coſtiveneſs, and the like; and that all Errors committed in the *Non-Naturals* are apt to haſten and bring on the Fit little expected. He at laſt infers, That the proximate Cauſe of this Diſeaſe is a vitiated Temper of the leaſt, and conſequently nervous, Veſſels in the Body, and alſo of the Liquid which waters thoſe nervous Parts; and moreover that this Liquid is defective by its Acrimony, and by its over Toughneſs.

It is with great Pleaſure to myſelf, and I hope with no ſmall Advantage to the Gouty, that I embrace the Opinion of ſo eminent and experienced a Phyſician; for I apprehend that by the *Liquid*, which waters the nervous Parts, he means to deſcribe the Oil that is contained in the *Capſulæ* of the *Membrana adipoſa*, and the lubricating Veſſels of the Joints and

Tendons, whoſe Office it is to ſoften and render flexible the Tendons and Ligaments in their ſeveral Actions and Motions; for what other Fluid can be hinted at by him, when he ſays, *Quod nervoſas partes alluit (b)?*

And to corroborate this my Opinion, I humbly conceive, that by the Word *Nerve* he does not mean the *Nerves* ſtrictly and properly ſo call'd alone, but the Tendons and Ligaments alſo, which all ſkilful Anatomiſts allow to be *nervous:* And therefore, if I have form'd a right Judgment of this great Man's Opinion, it will entirely tally and agree with that which I have for ſome Time paſt entertain'd, and which I ſhall, being my intended Subject, ſubmit to the Conſideration of the Reader, whether of the Faculty or others.

(b) *Aphoriſm* 1262.

The Doctor's Mention of the Toughneſs of this Liquid, which waters the nervous Veſſels in the Body, reminds me that we frequently ſee a tough Jelly, reſembling a thick Skin, after the Application of Veſicatories in Rheumatic Caſes. Accordingly we find Dr. *Drelincourt* ſpeaking of a Man that died of a Rheumatiſm, in whom he found a Jelly concreted upon the Superficies of the Muſcles, of the Thickneſs of two or three Ducats; which I take to have been formed in the Cells of the *Membrana adipoſa.*

These *Phænomena*, I am convinced by Experience, are very common; and therefore I conclude, that the Rheumatiſm and Gout differ only *quoad majus & minus*; that is to ſay, in plain *Engliſh*, that, when this Liquid has acquired only a *moderate* Degree of Viſcidity, the Diſeaſe may be termed

termed a *Rheumatiſm*; and whenſoever it arrives to the *greateſt* Degree, it may then properly be ſtiled the *Gout*.

Dr. *Havers* (*i*), from Mr. *Edward Bulkley* a ſkilful Surgeon, has given us the Hiſtory of a rheumatic Patient, "that had a large Tumour in one of "his Thighs, which being open'd by "a Cauſtick diſcharged a large Quan-"tity of thick Fluid, not in any re-"ſpect like *Pus*, but plainly like Milk "turn'd to a Poſſet, conſiſting of "ſome pretty large, and many ſmaller "Pieces of white Curd, mix'd with a "*Serum*, and was lodged in the In-"terſtices of the Muſcles, where the "*Mucilage* (or *watering Liquid* of "*Boerhaave*) is ſeparated and depo-"ſited."

Hence we may conclude, that the Lubricating Membrane is chiefly af-

(*i*) *Vid. Havers Oſteologia Nova*, pag. 227.

fected

fected in rheumatic Diſorders; and the oily Fluid, corrupted by bad Air, Acids, or the like Principles from without, is render'd too thick to be return'd into the Circulation, though not ſufficiently viſcid or condenſed to irritate and diſtend the Muſcles; which had it done, it might have changed its Situation, have fallen into the Extremities by its own Gravitation, and thereby have come under the Characteriſtic of the Gout.

The laſt Author I ſhall trouble you with is our Countryman Dr. *Liſter*, who ſays thus: "In gouty Habits, "the Organs deſtin'd to ſeparate the "mucilaginous Humour in the Joints, "being relaxed by ſome Error or o-"ther, eſpecially in Diet, by the fre-"quent drinking of too much Wine, "by Gluttony and Idleneſs, that na-"turally ſmooth and oily Humour is "turn'd into a crude and viſcid *Se-*"*rum*, which only not ſtagnating in

"the

" the excretory Ducts of the Joints,
" eaſily contracts a Putridneſs and A-
" crimony, and at laſt becomes *icho-*
" *rous* and corroſive, whence proceeds
" violent Pain, and the other uſual
" Symptoms that attend the Arthri-
" tic."

HAVING now finiſh'd my firſt Propoſition, which was to lay before you in the moſt ingenuous Manner I was Maſter of, (I wiſh I had been more able) the ſeveral Sentiments of eight Authors of great Weight and Authority, ſome in Phyſick, ſome in Surgery, I ſhall proceed to illuſtrate my own, already hinted at in *Page* 21.

Now in order to ſhew in what manner the gouty Matter is produced, I think it neceſſary to conſider the *Membrana adipoſa*, with its Uſe, Nouriſhment, Contents, Situation, and Diſtribution; for to the Diſtemperature of this Membrane, and its lubri-

cating

cating *Cellulæ*, I conceive the gouty Paroxyſms to be altogether owing.

It is ſituated under the *Cutis*, or true Skin, and compoſed of many *Laminæ* or Folds joined together, and extended over every Part of the human Body, in the Interſtices of the Muſcles. It appears very large, but ſpreading out into Ramifications becomes exceeding ſmall. It alſo involves (as it were) each *Faſciculus (k)* or ſmall Bundle of Fibres, and appears compos'd of an inconceivable Number of exceeding ſmall oily Veſſels, which cannot be diſcern'd but by the Help of a Microſcope.

This Membrane has alſo a Communication with that which lines the

(k) Mr. *Muys*, in the *Journal of Literature* for 1714, obſerves, that each *Fibrilla*, or ſmall Fibre, is of the Size of a ſlender Hair, and that five or ſix hundred of them may be counted in one fleſhy Fibre, whoſe Diameter is no more than the 24*th* Part of an Inch.

Inſide of the *Thorax* and *Abdomen*, tho' mention'd by few Anatomiſts; but this Structure is demonſtrated every Day by Butchers in blowing up their Meat, in doing which they not only ſwell the *Membrana adipoſa*, but the Air inſinuates itſelf likewiſe into the Interſtices of the Muſcles, nay penetrates even to the *Viſcera*, producing a kind of artificial *Emphyſema*. If we attentively obſerve in cutting or dividing any ſort of Fleſh, we ſhall find this Membrane between, as well as enveloping every Fibre of the Muſcles, and alſo ſpreading itſelf out in very minute Branches to every Part. This is obvious to the naked Eye; but if we take the Microſcope to our Aſſiſtance, we ſhall diſcover theſe Ramifications dividing into many more, and plainly perceive that theſe Branches are compoſed of an infinite Number of exceeding fine Veſſels, which form the Membrane itſelf, and contain

contain ſome Fluid for the Benefit of the Animal Oeconomy.

FURTHER, as this Membrane appears to be compoſed of innumerable Bags or Satchels, in which is contain'd a Quantity of unctuous or oily Juice, the Conſiſtence of which is different according to the Magnitude of the *Capſulæ* in which it is contain'd; and as Authors have not hitherto given a diſtinct Account how this Oil in the *Membrana adipoſa* is ſeparated from the Blood, nor fix'd on the proper Organ for ſecreting it, I ſhall here, in as conciſe and clear a Manner as I can, demonſtrate by what Means it is performed.

THE illuſtrious *Malphigi* took a great deal of Pains about this Subſtance; and in diſſecting Birds and Frogs, whoſe *Viſcera* and Veſſels are tranſparent, thought he ſaw a kind of *Ductus adipoſus*, by preſſing which he

obſerved oily Drops to run diſtinctly into the ſmall Ramifications of the *Vena Porta.*

Dr. *Havers* (before quoted) ſeems inclined to think, that the Office of the Spleen is to ſecern or percolate this Oil from the Blood, in conjunction with the Liver: And in order to confirm this Hypotheſis, he obſerves, that the Privation of this *Viſcus* does not affect the Animal in any other Manner, than that if they uſe much exerciſe they become very ſtiff in their Joints, and ſo continue a longer Time before they recover. By this we ſee the Doctor imagines this lubricating Oil to have been exhauſted and ſpent in the immoderate Uſe of the Muſcles.

The exact Conformity of the Veſſels in the Spleen, to thoſe of the adipoſe Ducts in the *Omentum*, gives us ſome Reaſon to incline to the Opinion which

which Dr. *Havers* has given us of the Uſe of the Spleen; for if we obſerve the Number of ſmall Veſſels which are contain'd in the Spleen, as alſo the Splenic Artery and Vein running in the Duplicature of the Caul, and laſtly, the Splenic Arteries bringing the Blood from the *Cæliac* into the Spleen, where it divides into innumerable Ramifications, we cannot but readily believe that the Blood undergoes ſome Alteration in the Spleen, in the ſame Manner as Blood brought into any other Gland; and that it is carried thence to the *Omentum*, in order to ſupply it with this Oil or Mucilage.

What induced me here to mention the *Omentum* was, that there is very little Difference between it and the *Membrana adipoſa*, excepting their different Situation, and Subſtance: Nay their Uſes entirely agree, ſince the firſt is intended by the Great

Creator

CREATOR to defend from Cold, and lubricate the Inteſtines, as the latter does the Superficies of all the Muſcles, being, to ſpeak anatomically, an *Univerſal Integument*.

FROM what has been here laid down, concerning the Spleen returning its Blood and Juices into the *Omentum*, and the apparent Communication between the one and the other, may we not reaſonably infer, that as the *Omentum* is ſupply'd by the *Spleen*, ſo may the *Membrana adipoſa*, the Contents of each being the ſame, and apply'd to the ſame Uſes and Offices?

THAT the Spleen is not the only Gland concerned in ſecreting this Fluid, is manifeſt from the Symptoms of a Dog whoſe Spleen has been taken out. This Animal (the Inciſion being cicatric'd) being put on ſtrong Exerciſe, ſuppoſe that on the Road, we ſhall perceive him grow weary much

much ſooner than another Dog whoſe *Spleen* remains; he will alſo become much more ſtiff proportionably in his Joints, and indeed in every other Part: From hence we may gather, that far the greateſt Part of the Oil contain'd in the *Capſulæ* of the *Membrana adipoſa*, had been for that Time exhauſted in lubricating the Muſcles, in order to facilitate their Motions. However, the Dog will by ſlower Degrees get quit of the Rigidity, and become active and nimble as before, which could not poſſibly be effected, if the Spleen was the ſole Organ of ſupplying this unctuous Juice.

WHAT then remains, ſince we find the Membrane repleniſh'd, tho' not over ſuddenly, but that we trace the Nature of Secretion in general, and thence learn by what *other* Means the Membrane is recruited? Which I ſhall endeavour to explain as briefly as I can.

can. Now for the better underſtanding glandular Secretion, we muſt obſerve the three following Particulars:

Firſt, That all the ſecretory Glands (whether *Spleen*, *Liver*, *Kidnies*, *Teſtes*, *&c.*) are compoſed of the Ramifications of the Blood Veſſels and Nerves, inclos'd in a proper Membrane, which Membrane ſends off Fibres to tye theſe Veſſels together.

Secondly, That all the Arteries thro' the whole Syſtem have no ending; and that the Veins are a Continuation of them, as appears by injecting Wax or the like into the Arteries, which fills at the ſame Time the Vein.

Thirdly, That when the Branches of the Arteries begin to grow ſmall, they ſend off ſeveral Ducts, which are the ſecretory Veſſels, whoſe Orifices, or Mouths, are of different Dimenſions,

ſions, according to the Fluid they are to ſecrete, be it a thicker, or thinner.

"The whole Doctrine of Secre-
"tion, ſays Dr. *Morland* (*m*), may
"be reduc'd to this double Enquiry;
"*firſt*, how a *thin* Fluid, ſuch as is
"the Urine, may be ſeparated from
"the Maſs of Blood, and the re-
"maining Parts of the Blood circu-
"late back to the Heart; *ſecondly*,
"how a *thick* Fluid may be ſeparated
"from the Maſs of Blood, and the
"other Fluids, both thicker and
"thinner, circulate back to the
"Heart."

The Reaſon why the Teſticles are compos'd of ſuch very long Canals, is this, that there might be Time enough to let all the thinner Fluids be

(*m*) *Vid. Philoſophical Tranſactions abridged*, Vol. V. pag. 249.

carried off firſt another Way; for the Semen, we know, is a very thick Liquor, therefore the Blood being puſh'd into the Spermatick Arteries, paſſes into the Subſtance of the Teſticles, where all the Liquors that are thinner than *that* out of which the Semen is to be taken, are ſeparated by the firſt Sort of ſecretory Ducts, and return'd by the Vein to the Maſs of Blood. That the *Liquor Seminalis*, being the thinneſt Part of the remaining Maſs, is ſeparated by excretory Ducts, capable to receive *it*, and no other; whence this Fluid is carried into its Repoſitory, the *Veſiculæ Seminales*, by Canals term'd *Vaſa differentia*. I conclude with this Axiom, *(viz.)*

To ſeparate a Liquor of any determin'd Thickneſs, all the Fluids which are thinner, muſt be carried off by ſmall Canals; and the Liquor to be ſeparated, being the *thinneſt* of the *remaining*

remaining Maſs, is ſecern'd, becauſe the Ducts are capable to receive *it*, and *no other*.

HAVING premiſed that all the ſecretory Glands are compoſed of the Ramifications of the Arteries, Veins, and Nerves; ſo obſerving with a Microſcope, we plainly ſee that the *Membrana adipoſa* is compos'd of exceeding fine Veſſels, which in my humble Opinion are of the ſame kind with thoſe of which the Glands in all Parts of the human Body conſiſt; and hence it will follow, that this Oil is ſecreted not only by the Spleen, but in the ſame Manner as all other Fluids are, *(i. e.)* from the *Arteries*; and in this Light the adipoſe Membrane may very properly be look'd on as a *Secretory Gland*: And for as much as the Contents of it appear to be deriv'd from the finer and lighter Parts of the Aliment, ſeparated from the Blood in the Manner

before deſcrib'd; ſo thro' its Fineneſs and incomparable Smoothneſs, it is adapted to many Uſes extreamly beneficial to the human Body.

Firſt, It ſerves the Muſcles in preſerving the Flexibility neceſſary for their Actions, and in preventing or leſſening their mutual Frictions.

Secondly, To keep the Body warm, to defend it from the external Cold, which we find makes a much ſtronger Impreſſion on lean than on fat Perſons.

Thirdly, It operates as a Balſam in preſerving the Body from Injuries, by corroſive and pungent Salts, which it effects by enveloping and blunting them, in the ſame Manner as the *Axungia Viperina* acts on a Perſon bit by a Viper, which Dr. *Mead (n)*

(n) *Vid. Mead's Mechanical Eſſay on Poiſons.*

declares,

declares, is from its ſheathing the volatile Salts of the venomous Liquor, and preventing their ſhooting into the cryſtalline *Spiculæ*, by him ſo judiciouſly deſcribed.

Laſtly, Some Authors are of Opinion, that it returns into the Maſs of Blood, by the capillary Veins, and thereby for ſome certain Time ſupplies the want of Nouriſhment; to which the long Abſtinence of ſome Animals, (ſuch as Snakes, Vipers, *&c.*) gives great Countenance, who before they diſappear are plump and full, but on their Return in the Spring, are lank and emaciated. I would fain enquire what other Fluid of the whole Body could ſubſiſt them, except this oleaginous Subſtance.

That this Oil is increas'd by Reſt, and good Living, and diminiſh'd by hard Labour, and a ſpare Diet, is too obvious; ſince we always ſee Perſons who

who uſe little Exerciſe, and lead an indolent Life, rather inclined to Fat than others; for their muſcular Motion being leſs frequently exerted, a ſmaller Quantity of this Oil will be conſumed.

A ſedentary Life, 'tis true, muſt render the Fat leſs fluid, and conſequently more capable of blocking up the Paſſages of inſenſible Tranſpiration, thro' which it would otherwiſe run off: On the contrary, we may obſerve, that hard Labour diſſolves it, and conſequently fits it for paſſing *out* of the Body; accordingly we find hard working Men very rarely fat, or *afflicted with the Gout.*

The neceſſary Labour of the Poor, entitles him to as good, if not a better State of Health than the higher Rank of People enjoy. The Mechanick has generally the keeneſt Appetite, the beſt Digeſtion, the moſt undiſturb'd

diſturb'd Sleep, is not liable to crude and undigeſted Humours, the Craſis of his Blood not vitiated, the Æquilibre of the Solids and Fluids exactly preſerv'd, and yet are not inclin'd to be Fat, for the Reaſon abovemention'd. Indeed were the Rich and Luxurious ſo kind to themſelves, to uſe ſuch a Degree of Exerciſe as is proportion'd to their ſeveral Conſtitutions, that might ſerve to *attenuate* this oily Subſtance, to diſſolve any offenſive Salts *in* the Blood, and force them *out* of the Body, to the no ſmall Preſervation of their Health, and prolonging their Exiſtence.

The conſtituent Parts of this Oil muſt convince us, from their being of ſo fine, ſo ſoft, and ſo emollient a Compoſition, that it cannot in its *own Nature* produce the *Arthritis*: Hence it follows, that ſome preternatural Salts or Humours muſt have been receiv'd into the Blood from without,

without, which had ſufficient Power to alter its Conſiſtence to ſuch a Degree, as muſt occaſion a *Morbid* State, to which this Fluid ſeems to me more eaſily ſubject, ſince we all know that common Adage, *corruptio optimi eſt peſſima*; which when ever ſhall be the Caſe, as too frequently it is, the beneficial Uſe for which Nature deſign'd it, is not only prevented, but *inverted*.

Now was it poſſible that this Oil ſhould undergo ſuch morbid Alterations *from its own* Texture, Mankind would live in a moſt unhappy State, and be ſubject to Pains and Diſorders in all Parts where this Membrane is diſtributed, that is in *every Part* of the Body, not to mention the Rigidity, and, pardon the Expreſſion, the *Anchyloſis* of every Muſcle.

It is a receiv'd Maxim in Phyſick, that whatever diſorders the Vital, the Natural,

Natural, or even the Animal Function of the human Body, produces (and is call'd) a *Diſeaſe*. I have ſaid before, that this Oil is not in *itſelf* corruptible, but may be, nay often is, vitiated by ſeveral different Principles receiv'd *into the* Blood by bad Diet, which changes its Texture, and renders it unfit for the Offices to which Nature and the Law of Circulation originally intended it.

I PROCEED to ſhew by what means this lubricating Oil is chang'd from its natural Conſiſtence, which I apprehend to be from different Subſtances, or Principles, taken in with the Aliment; which being incorruptible Bodies, will not diſſolve, but remain in the Maſs thro' Neglect of Exerciſe to expel them. Theſe Saline Particles are chiefly produced from Debaucheries, unwholſome Air, Exceſs of Wine and ſpirituous Liquors, which cauſing a bad Digeſtion, Crudities,

with four Belchings, &c. muſt neceſſarily ariſe; theſe being *improv'd* and nurs'd by Indolence, the Blood becomes impregnated with ſuch Sort of Salts, as will at firſt cauſe an Obſtruction in the *Capſulæ* of the *Membrana adipoſa*, with its Glands, and in proceſs of Time, break thro' them, when mixing with the Oil they will cauſe a *Coagulum*.

Observe that this *Coagulum* is not always of the *ſame* Conſiſtence, which gives us the Reaſon why the Pain in a Paroxyſm is not always the ſame in the ſame Perſon, but varies according to the Age, Conſtitution, and length of Time the Gouty has been afflicted, as alſo in a Degree proportionate to the Quantity of offenſive Matter with which the Blood is loaded: And the more *inſpiſſated* the Matter is in the Parts affected, the greater will be the Inflammation, the Pain more acute, and longer Time

will be requir'd to diſſolve and tranſpire the concreted Matter, by the Application of warm Flannels generally uſed, which help to attract it thro' the Pores of the Skin; which muſt be done before the Parts can be relieved, and is the ordinary *Criſis* of each Fit, as is ſelf-evident. I would not be underſtood to inſinuate, that the Gout is caus'd by a Man's ſatiating his Appetite a *few* Times only, either with the higheſt Viands and Sauces, or the moſt ſearching Wines; nor will Sloth, or Neglect of proper Exerciſe for a few Months, be ſufficient to induce a *gouty Habit*; this muſt be caus'd by a *long* Series of Luxury, Indolence, and Errors in the Non-Naturals, by which the Spring of Life may be ſupported, as by Neglect it muſt be deſtroy'd. What *Glandorp* remarks, may not here be improperly apply'd: "*Gutta* "*cavat lapidem non vi ſed* ſæpe *ca-* "*dendo.*"

The next Enquiry I ſhall make, ſhall be into the *various* Principles concern'd in metamorphoſing this Mucilage; amongſt theſe are ſuch as acrious, ſubtle, and urinous Salts, ſtrong Acids, tartarous Wines, and nitrous Air, which being more or leſs compounded with each other, or mix'd with an Auſtere, will cauſe a Rupture, and a *Coagulation*, which is the *Gouty Matter*.

Now as every one knows that the Delicacy of Flavour in Sea-Fiſh, Wild Fowl, Veniſon, and ſuch Food, is owing to their abounding with an oily urinous Salt, no one can be ſurpriz'd that ſuch Principles, or ſuch Sort of Salts taken into the Blood with the Food, ſhould give Birth to the *Gouty Matter*. Nor is it leſs obvious, that Wines do aſſiſt in increaſing this Diſtemper, when we conſider the great

great Quantity of Tartar with which they are ſaturated.

Let us, for Example, ſuppoſe the Blood to be charg'd with a large Quantity of the Principles before-mention'd, which muſt happen after a few Years; and theſe to be carried with the Circulation, till a Quantity of Oil, in the Manner ſo often deſcrib'd, is ſecerned, for lubricating the Muſcles and Tendons; and theſe Salts mixing with this unctuous Juice in the Veſſels of the Glands, or Adipoſe Membrane, will cauſe a *Coagulum*, or viſcid Humour, which becoming too ponderous to be circulated with the Maſs, muſt in Time burſt the *Capſula* in which it was lodged, and from thence be precipitated into the Interſtices of the Muſcles.

The Quality and Degree of Concretion will bear a reciprocal Pro-

portion

portion to the Quantity of the Principles which firſt cauſed the *Coagulum*, as by the following Experiments will appear.

EXPERIMENT I.

POUR a Dram of Joint Oil into an earthen Veſſel, and pour upon it half a Dram of diſtill'd Vinegar, you will find a coagulated Oil with a Serum, though not ſo ſtrongly condens'd but that it will eaſily diſſolve in Water.

EXPERIMENT II.

IF to theſe Contents you add half a Dram of Decoction of Galls, you will find a ſtrong white thick Matter that will not readily diſſolve in Water, which ſo far differs from the firſt Coagulum, *that on evaporating the Fluid, the Bodies will ſoon adhere to each other, will become hard and brittle,*

brittle, and greatly reſemble a gouty Tophus, *or Chalk-ſtone.*

From theſe Experiments, it may naturally be inferr'd, that *hot* Medicines in a Fit of the Gout, may produce very ill Effects, by exhaling the thin Part of the Blood, as the Heat in Summer does the Moiſture of the Earth, or a hot Hand the Juices of a gather'd Flower; ſuch Medicines having once abſorb'd the *Serum*, muſt render the Circulation of the Blood more ſlow, and give the Globules time to increaſe in Magnitude by their mutual Attraction, which Globules rubbing againſt the inward Coat of the Arteries (which have an exquiſite Senſation, as being *nervous*) will produce various, and thoſe very dangerous Diſorders.

But, on the contrary, if the Patient drinks plentifully of Sack-Whey, and ſuch like *Diluters*, the *Craſſamentum*

mentum of the Blood will be furniſh'd with an additional Vehicle, which will not only guard it againſt the bad Symptoms above, but relax the too tenſe Fibres, and contribute to render the Circulation equal, and *regular*.

THE external Air is generally thought to conſiſt of different Principles in the different Seaſons of the Year; and in froſty Weather, it ſeems manifeſtly to be impregnated with a large Quantity of nitrous Salts, as we may gather from the Fire's burning blue at ſuch Times. Now the Nitre wherewith the Air is in Froſts ſaturated, may cauſe a *Coagulum*, as being a powerful Acid, by mixing with the Oil of the *Membrana adipoſa*. To confirm which, give me leave to remind you of the familiar Inſtance of Rabbits, which thrive beſt in hard Froſts, tho' then worſt provided with Food; for their Fat being coagulated by the nitrous Air, it becomes ſo hard

and

and compact that it is impoſſible it ſhould paſs off by inſenſible Tranſpiration, as it does in open warm Weather.

When we conſider the conſtituent Parts of Wines in general, tho' ſome Sorts have more than others, we find they are of an acid Tartar, and have an auſtere Quality, as is evident from their Stipticity, and Roughneſs on the Tongue and Palate. Hence it ariſes that thoſe who uſe themſelves to drink large Quantities of Wines are for the moſt part afflicted with this grievous Diſtemper.

There is an eaſy Experiment which will convince us that ſuch Wines do *coagulate* the lubricating Oil: For Example, take an Ounce of Joint Oil, and put to it two Drams of Claret, you will find it *coagulate* inſtantly.

HAVING now ſhewn the Principles which produce the arthritic Concretion or *Coagulum*, I proceed to enumerate the Parts which are uſually the Seat of this Malady, and the Reaſon why they are ſo.

THE great Toe, Foot, Knee, Shoulder, Elbow, with the Tendons on the Joints, and wherever there is plenty of lubricating Veſſels, are the Parts *uſually* affected, (tho' I own ſometimes the Head, Stomach, and Bowels are ſubjected to a gouty Inſult) for this Reaſon, that the oily Glands, ſo numerous, are more ſubject to be compreſs'd by the Extremities of the Bones, by which Obſtructions muſt neceſſarily be caus'd; ſo alſo I conceive theſe oily Veſſels will eaſily admit of a Coagulation, from their natural Coldneſs, Weakneſs, and Diſtance from the firſt Mover, the *Heart*.

It is indeed a general Notion, that the Gout, in the extream Parts, is a *critical* Diſcharge of Nature, by which ſhe (as ſometimes in Fevers) frees herſelf from all ſuch Matter, or Salts, as would otherwiſe prove prejudicial, and injurious.

This Opinion obtains ſo far with many, as to make them wiſh and deſire a Fit of the Gout, looking on it as a Sign of Longevity, and as a Depuration of the Feculencies of the Blood.

But that this Opinion, howſoever prevalent, is erroneous, we ſhall find, when we conſider attentively the Nature of a *perfect* Criſis; for, as *Hippocrates* obſerves *(o)*, a *perfect* Criſis

(o) Vid. Aphoriſm 25. *Sect.* 1. *Si qualia oportet purgari, purgentur; confert, & facilè ferunt, contraria verò difficulter.*

immediately relieves the Patient, and in Surgery a *critical* Tumour always apoſtumates and diſcharges good Matter *(album, læve & æquale)* if it be open'd in due Time, which will prevent the Veſſels from imbibing it again, and ſo poiſoning the whole Maſs. But, alas! neither before nor ſince *Aetius*'s Time, did the gouty Matter ever come to a laudable Suppuration, neither, in my Apprehenſion, can it be abſorb'd, being too much condens'd to return by the Capillaries.

The Feet generally feel the *firſt* Attack of this Diſeaſe; and the Pain, no doubt, proceeds as well from the Tendons being preſs'd and irritated, as the Glands and Membranes being over diſtended, nay often lacerated.

The Blood, if we chymically enquire into its *primitive* Parts, is found to be compos'd of Phlegm, Oil, an alcaline

alcaline volatile Salt, and a little Earth; whence we may reaſonably conclude, that the gouty Matter is never form'd in the Blood, whilſt that continues in its natural State; and therefore it muſt be owing to ſome acid Salts, that give riſe to any Sort of Coagulation in the lubricating oily Veſſels. If then no gouty Matter can be made in the Blood, how is it poſſible that this Diſeaſe ſhould invade the Extremities as a *critical* Effort of Nature?

AGAIN, were we to ſuppoſe the gouty Matter to be critical, to what terrible Diſorders ſhould we ſubject the human Body? Since we find, as before ſaid, that even the Head, Bowels, and Stomach, are frequently affected. A *ſtrange* Sort of *Criſis* truly, where the Remedy is more to be dreaded than the Diſeaſe!

I OF-

I OFFER this as my Opinion, that whenever the tartarous and urinous Salts are ſo morbidly redundant as to invade theſe principal Organs of Life, the Miſchief commences not in the Blood Veſſels, but in the Membranes, which are ſtudded with oily Glands; and of this Sort are the *Pleura Pericardium*, *Peritoneum*, and *Pericranium*.

WHEN once a luxurious Perſon has, with great Induſtry, acquir'd the Gout, no doubt by the very ſame Methods he may increaſe, improve, and confirm the Diſeaſe; for Irregularity of Living, purging at improper Times, ſtoppage of Perſpiration, immoderate Exerciſe, drinking too liberally of vinous Liquors, muſt *rivet* and eſtabliſh the arthritic Habit.

I COULD wiſh that the Quackery which has almoſt crept into every Family,

mily, the Multitudes of Recipe's and Noſtrums, the Grand-mother's worſt Legacy, was leſs notorious in this Iſland; for of late there are but few Families that do not entertain one of theſe Pretenders, who, not unlike the boaſting itinerant Quacks, promiſe a Specifick *which inſtantly cures* Agues, raging Fevers, Stone, Jaundice, and what not? The ſame, no doubt, outwardly apply'd, will heal all Wounds, nay perhaps a broken Bone! *Hinc noſtræ Lachrymæ:* Hence the immoderate Swelling of the Bills of Mortality; for (without Offence I hope) one might affirm that more Subjects are deſtroy'd by theſe *Arcana* in one Year, than have been kill'd in theſe *laſt Four* of War. And if the Legiſlature ſtill ſuffers theſe Pretenders to go on with Impunity, the Government will be ſtill oblig'd to retain in their Pay the Troops of other Nations. ——

And Dr. Freind ſays(o), "There "are ſo many little Arts uſed by "Mountebanks and Pretenders to "Phyſic, that an entire Treatiſe, "had I a Mind to write *one*, would "not contain them. But their Impu- "dence and daring Boldneſs is equal "to the Guilt and inward Conviction "they have, of tormenting and put- "ting Perſons to Pain in their laſt "Hours, for no Reaſon at all, &c.

But to return to my Subject: The gouty Patients, by their Irregularities, bring themſelves into the moſt imminent Danger of Death, nay many undergo it. A Caſe of this Nature lately came to my Knowledge, which I beg Leave to recite.

A Gentleman, whilſt I was writ-

(o) *Vid.* Freind's *Hiſtory of Phyſick*, Part II. pag. 65.

ing

ing this, inform'd me, that an Acquaintance of his, who had for many Years been afflicted with the Gout, after taking a long Journey fancied himſelf cured. To this I anſwer'd, that his preſent Relief proceeded only from this; namely, that the Succuſſion of the Horſe, by increaſing the Velocity of the Fluids, might occaſion a freer Diſcharge by Tranſpiration thro' the milliary Glands, might for a Time widen the Diameters of the Veſſels, and by cauſing the Salts to ſtrike one againſt another by Friction, break them, and then force them thro' the Pores. I was afraid, moreover, that the more viſcid and heavy Matter might have been thrown into ſome Part leſs ſuſceptible of Pain, whence the preſent Eaſe and imaginary Cure. I could wiſh my Prognoſis had not been verify'd, for ſoon after I was inform'd, that the Matter was lodg'd in his Loins, which occaſion'd ſo violent a Fit, as to inflame

not only the ſpermatick Veſſels and Ureters, but, gravitating more, even the *Pſoas* Muſcles. The *Inflammation*, from its Violence, or for want of proper Applications, ended in a *Necroſis*, or Mortification.

HAVING deſcrib'd the Manner how the arthritic Matter is form'd, from what Bodies the *Coagulum* is produc'd, namely, by various Kinds of Salts taken into the Blood with the Aliment; I ſhall now proceed to enquire how far this obſtinate Diſeaſe, this *Opprobium Medicorum*, will admit of a *Cure*, what Relief Nature may receive from ſeveral *External* Operations, which being the proper Objects of *Surgery*, come within my Province: For as to *Internal* Medicines, I pretend not. As to the Uſe of Mineral Waters, and proper Diet, ſee the Doctors *Cheyne* and *Wynter*; as to Exerciſe, conſult Dr. *Fuller*'s *Medicina Gymnaſtica*. I ſhall begin with Bleeding.

Now

Now whereas the Patient, on the *firſt* Attack of the Gout, always complains of a ſhivering, as from a ſudden Cold taken; in this Caſe the Patient having a full and weak Pulſe, I conceive *Bleeding* to be beneficial, becauſe it will increaſe the *Momentum*, and break the Coheſion of the Blood; and the Velocity being ſo increas'd, a generous Warmth and Perſpiration will enſue, and thereby diminiſh the Quantity of acid Salts floating in the Blood, which would bring on greater Inflammations and Obſtructions in the Capillaries. Whenſoever the Gout invades like an *Inflammation merely*, before Chalk has been produc'd, *Bleeding* carries off the Fit ſo throughly as to leave the Patient betwixt the Fits entirely free, and his Joints unhurt. I confeſs that in an *hereditary* Gout it is impoſſible *Bleeding* can be of Service as *curative*, becauſe the morbifick Humours are innate, and inter-

woven in the original *Stamina* of Life, (the Solids in theſe Perſons being remarkably relax'd and infirm) but in an *acquir'd* Gout, the Blood having receiv'd at different Times but ſmall Quantities of thoſe Principles which cauſe the gouty Matter, they may be carried along with the Circulation, and conſequently reliev'd by *Bleeding*. The following remarkable Caſe, for which we are oblig'd to the great Profeſſor *Boerhaave* *, gives us great Light: "The late Counteſs Dowager "of *Lincoln*, had been often afflicted "with the Gout, which uſed to con- "tinue pretty long. I propos'd Bleed- "ing to her Ladyſhip, and ſhe con- "ſenting, her Ladyſhip, tho' ſixty "Years old, was bled five Times in "leſs than ten Months, with wonder- "ful Succeſs and Relief, for on the "firſt Bleeding the Fit went off in "twenty-four Hours; and, moreover,

* *Vid. Aphoriſm* 1720.

"Bleeding

" Bleeding ſo far ſubdued the Cauſe " of the Gout, that after that Time " her Ladyſhip was ſeldom afflicted " with it, and the Fits abundantly " leſs ſevere."

But let not this Inſtance make us too ſanguine, nor too poſitive of Succeſs, ſo as to induce us to imagine there are no Caſes in which it may not have a bad Effect. For Example; if a Perſon has been many Years afflicted with the Gout, we muſt ſuppoſe there has been an Accumulation or Congeries of bad Principles in the Blood, over and above thoſe that firſt produced the gouty Matter, which (ſince by the Laws of Secretion it appears that the moſt fluid Parts of the Blood run off firſt,) will have more Power to attract each other, and, when carried into the lubricating Oil, will with more Eaſe deſtroy its Texture, and cauſe the *Coagulum*, the Quantity of ill Principles

Principles being greater in proportion to the remaining Maſs,

Let us ſuppoſe a Perſon's Blood to have imbib'd four Ounces of theſe ſaline Particles, and the Weight of the whole Maſs to be about twenty-four Pounds *(p)*, which is the ſuppos'd Quantity in a middle-ſiz'd Man, then I apprehend ſuch a Quantity to be ſufficient to diſorder the Blood but ſlightly; therefore it requires great Caution, in my humble Opinion, leſt on Veneſection the Salts, being the moſt ponderous, ſhould not paſs thro'

(p) Twenty four Pounds of Blood are thought by Anatomiſts to be the neareſt Calculation of the whole Maſs: But Dr. *Allen Moulin* has communicated a Paper to the *Royal Society*, by which he makes it not near ſo much, for he ſays it is but one twentieth of the Weight of the Body; ſo that inſtead of a Man's having twenty-four Pounds of Blood, who weighs twelve Stone Horſe-Man's Weight, he will have but eight Pounds, which is but one Third of the computed Weight by Anatomiſts. See *Philoſophical Tranſactions abridg'd*, Vol. III. Chap. V. pag. 225.

the

the Orifice, in an equal Proportion to the ſerous Part of the Blood.

These Salts, I fear, after ſuch an Operation, muſt have a greater Influence on the remaining Fluid than they had before, and become more intimately combin'd, and more ſpecifically heavy than the Blood itſelf, which muſt bring on ſtill greater Diſorders.

In my Obſervation and Practice, I have met with Succeſs by *Bleeding*, when the Part affected does not ſwell kindly; but whenſoever the Lungs, and the noble Organs of Life become the Reſidence of this Tyrant, then, I ſay, *(q)* Bleeding is unavoidable: For by it the Compreſſure of the external Air will be taken off, and the Particles of the inward will be enabled to exert their Elaſticity, by which the

(q) Vid. Aretæum, cap. 10, 11 — 17 — 19.

contracted

contracted Fibres of the Veſſels will be dilated, and the compreſs'd Veſicles diſtended, ſo that the Influx of the Blood will be with leſs Difficulty.

When we reflect on the Advantages of *Bleeding* in the *inflammatory* Gout, it will help us to account for the Service it often does in the Small-Pox, ſince we find it ſo far from retarding the Maturation, that it promotes it, and cauſes a more ſpeedy Criſis. The exquiſite and delicate Subject of Bleeding has been ſo ſkillfully treated of by *Bellini*, *Botallus*, and others, that I decline being more prolix and circumſtantial on this Head.

As Salivation has been too frequently impos'd on the gouty Patient, I cannot paſs it over without taking Notice of the ill Effects which muſt attend ſo raſh an Operation, with an Intent

Intent to caution all againſt ſo fallacious, not to ſay pernicious a Method of Practice.

MANY Authors, I am convinc'd, have recommended *Salivation* as a thorough Alterative in this Diſeaſe, and I could wiſh that they had been contented with their Theory: Philoſophy, till ripen'd into Practice, is an innocent Weapon, even in the Hands of the Ignorant.

I ACKNOWLEDGE that for the preſent the Patient has ſeemingly found Relief, but I cannot underſtand the Wiſdom of adding Pain to Pain, Fuel to Fire, a noxious Acid to one of the ſame Kind (I mean the gouty Matter.) In Venereal Caſes Dr. *Freind* has obſerved, that in this Climate nothing but a free and liberal Diſcharge by the Salivary Glands can prove curative; but ſurely that, and the Diſeaſe I treat of, are generated from very

different Principles, and therefore muſt require as different Remedies.

The Chalky Concretions have Force ſufficient to break and lacerate the ſmall and tender Veſſels, nay the very Membranes of the Fibres, without the additional *Momentum* of Quickſilver; therefore it muſt be (if not noxious) at leaſt uſeleſs and unneceſſary; for every Child knows that, *fruſtra fit per plura quod fieri poteſt per pauciora.*

It is my Opinion, that *Salivations* in general induce oftner a *worſe* Habit than before, not a *better*; for when we conſider how poiſonous all Mercurials are to the nervous Syſtem, we ſhall not wonder how Palſies, Hypocondriack Symptoms, Loſs of Memory and the other Faculties, too often ſucceed it.

I am not ignorant that many will

be ſurpriz'd, to hear a Surgeon declaiming againſt this lucrative Branch of his Profeſſion; but as I would follow Truth, and the Good of my fellow Creatures, rather than my own Gain, I could not forbear.

HAVING thus ſpoken negatively of a Salivation, I proceed to explain to you the ſecond External of great Efficacy in the Gout, that is, *warm Bathing*; which I conceive to be beneficial not only in the Intervals, but even in the Fit itſelf.

THE many infallible Noſtrums daily advertis'd in the publick Papers of late Years, have caus'd too many to overlook and neglect the ancient Uſage of *hot Baths*; but alas! theſe pretending Boaſters are not only ignorant of the Nature and Seat of this Diſeaſe, but are forc'd, in order to vend their never-failing Oils, to call to their Aſſiſtance a Medico-Theological

gical Diſſertation (*r*), in order to prove that their beſt external Application can extinguiſh the *Phoſphorus*; for *ſo* the Doctor is pleas'd to term the gouty Salts.

Dr. *Wynter* obſerves, in his Letter on *hot Bathing*, that very many are deterr'd from it, from the falſe Notion that "the Preſſure of the Water "may repel the gouty Matter, and "thereby obſtruct ſome vital Part." No doubt where there are Signs of Inflammations (as in Peripneumonies, Pleuriſies, violent Hæmorrhages, whether they are *Morbi primarii*, or attending the Gout by Tranſlation) *Bathing* muſt prove prejudicial, as it neceſſarily increaſes the Velocity of the Blood.

These groundleſs Frights and Fears, ſo trifling, ſo chimerical in

(*r*) *Vid.* Dr. *Stukely*'s *Eſſay on the Gout.*

them-

themſelves, might be eaſily anſwered.

Had not the Ancients been ſenſible of the great Benefits of *Hot Bathing*, they would not have been at that amazing Expence we find they were, in erecting ſuch magnificent Bagnios, the Ruins of which appear at this Day *ſtupendous*.

The Ancients had two Sorts of *Hypocauſta*, the one call'd *Vaporarium*, by ſome *Laconicum vel Sudatio*, which was a large Sweating Bath, in which were *tria Vaſaria ahena*, call'd *Caldarium*, *Tepidarium*, and *Frigidarium*; the other Sort was a Kind of *Fornax*, or Kiln, which is the ſame the *Finlanders*, *Ruſſians*, and other Northern Nations uſe to this Day, to relieve Pains in their Limbs, Surfeits, and the Sciatica.

THE *Romans* erected ſeveral of this Kind in this Iſland: One at *Wroxeter* is mention'd by Mr. *Lyſter*, a ſecond by Sir *Chriſtopher Wren* at *Wincheſter*, a third by Mr. *Hunter* in *Yorkſhire*, a fourth by Mr. *Lhwyd* at *Kaerhyn*, in *Carnarvanſhire*, and a fifth by the great Hiſtorian and Antiquary Mr. *Cambden (s)*, at *Hope* in *Flintſhire*.

THE *French*, *Italians*, *Spaniards*, *Germans*, and all the Nations over which the *Romans* extended their Conqueſts, have follow'd their Example.

BUT to return to the Objection of the Preſſure of warm Water, and the Apprehenſion of its repelling any Humour, and more eſpecially that of the Gout, I cannot conceive it proba-

(s) *Vid. Cambden's Britannia*, pag. 688. *Engl.*

ble,

ble, no, nor even poſſible; ſince the Body is *univerſally* immers'd, the Heat and Preſſure will be equally diſtributed over its whole Superficies. On the contrary, a *warm Bath* will facilitate the Acceſs of any Matter to the Part firſt affected, by ſoftning and relaxing the Veſſels, as well as diluting and attenuating the Fluids. Inſenſible Perſpiration is by *Hot Bathing* greatly promoted, as appears from ſundry Inſtances, but more particularly in the Small Pox, where upon the ſudden ſinking in or diſappearing of the neceſſary Swelling that attends it, the Patient being *bathed* in a Veſſel of warm Water, the Puſtules have ſeldom or never fail'd to repullulate and go on to obtain a due *Maturation*.

But what will the Objectors to this Practice ſay, when from Statical Experi-

Experiments *(t)* we ſhall prove, that warm Water inſinuates itſelf into the Pores of the Skin, otherwiſe how could *warm Bathing* increaſe the Weight of the Body for the preſent, though it cauſes a plentiful Perſpiration afterwards, but not near ſo large as Dr. *Keil* has deliver'd, his amounting to one Pound and half in one Hour's Time, whereas by other Obſervations it is but five Ounces in an Hour, and from eight Ounces and half to one Pound in one Hour and half, though aſſiſted by Motion.

To prevent this extraordinary Increaſe by Perſpiration, it is the Cuſtom, even in Northern Countries,

(t) EXPERIMENT.

	ſt.	lb	oz.		oz.
Suppoſe a Perſon to weigh before Bathing	9	0	0	Water imbib'd	3
After Bathing	9	0	3	Sweated out	8
After an Hour laid in Bed	8	13	11	Loſs in the whole	5

after

after the Uſe of *Hot Baths*, which is always twice a Week, if not oftner, to go immediately into a *cold* one; the Intention is to ſtop the too open Pores, and to reſtore the relaxed Fibres to their natural Tone and Elaſticity. Accordingly in *Ruſſia*, of which I have been an Eye-Witneſs, the Nobility, for the Intent aboveſaid, generally erect their Sudatories near the Sea, or ſome River.

No doubt the Fibre being in its own Nature *elaſtic*, would in Time recover *per ſe*, when freed from Obſtructions; but this external Aid ſeems to me a judicious Practice.

The Application of warm Flannels being *topical*, relieves the Part affected, in the ſame Manner as *Bathing* does the *general* Habit.

Further, I apprehend that the Rigidity and Stiffneſs that generally

 attends

attends all Perſons who have been ſubject to many and tedious Fits of the Gout, might, by early and warm *Bathing*, be in a great Meaſure prevented. This might prove, as it were, a *Succedaneum* for the lubricating Oil in the *Membrana adipoſa*, this might defend the Tendons, and facilitate their Action.

Again, as no one would willingly continue longer in Pain than Neceſſity oblig'd him, and as *warm Bathing* might reaſonably be imagin'd to diſcharge as great a Quantity of the fabulous gouty Matter in a Week, as Flannels could in a Month, then it follows that the former Method is to be preferr'd, which acts and cures as *Celſus* ſays ſhould be, *Cito, tuto, & jucunde.*

Give me Leave barely to enumerate the ſeveral Effects of *warm Bathing*.

Firſt,

Firſt, It relaxes the too tenſe Fibre.

Secondly, It promotes univerſal Sweating.

Thirdly, It occaſions an impartial and legitimate Diſtribution of the Blood, through all its Veſſels; hence we gather how Pains in the Head are reliev'd, by putting the Feet into a *Semicupium*.

Fourthly, It enables the cuticular Glands to imbibe a Quantity of Fluid, ſufficient to diſſolve the concreted Matter in the Joints, Glands, *&c.*

Fifthly, It removes the Pains ariſing from the Stoppage of inſenſible Perſpiration.

Sixthly, It refreſhes the animal Spirits, and relieves the Soreneſs and

Stiffneſs of the Muſcles, which attends Perſons after long and tireſome Journeys *(u)*.

Seventhly, It attenuates the Fluids, and opens Obſtructions in general; therefore it is of great Service in Palſies, and moſt Chronical Diſeaſes.

Should this Practice, ſo much recommended, ſo much inſiſted on by the ancient Phyſicians, be once more reviv'd in this Country, I would adviſe the Architect to follow exactly the *Roman* Model, to keep up to their *Calidarium* and *Tepidarium*, that ſo the Bath might be kept in whatever Degree of Warmth ſhould be requir'd in the preſent Caſe; for, no doubt, different Caſes will demand a greater or leſs Degree of Heat.

(u) Mr. *Cambden* obſerves, that the *Romans* conſtantly Bathed after the Fatigue of War, Hunting, or any Violent Exerciſe.

With the utmoſt Submiſſion to the modern Writers, and the preſent Practitioners, I conceive that though very great Caution and Circumſpection ſhould be uſed in *Bathing*, whilſt the Fit remains on the Afflicted, yet I can foreſee no Danger in its Uſe in the Decline of its Paroxyſm.

Dr. *Guidot*, the Reviver of drinking the *Bath* Waters, has given us two remarkable Caſes, in each of which the Gout was cured by *Bathing* only. One of the Patients, he ſays, was recover'd in the Year 1676, the other in 1693.

The original and primary Uſe made of hot and medicinal Waters in this and all other Nations, was that of *Bathing* in them. Our *Bath* Waters, in *Somerſetſhire*, ſeem to have been apply'd to this Purpoſe firſt in the Reign of *Claudius* the Fifth,

Fifth, Emperor of *Rome*. *Drinking* theſe Waters did not greatly obtain, till Dr. *Maplet* order'd Lady *Noel*, her Son, and the noble Dame *Elizabeth Spencer* to *drink* them, about Seventy-three Years ago, before which Time there were at leaſt a thouſand *Bathers* for one that was allow'd to *drink* the Waters: However, from this Æra we find, that *Drinking* began to vie with *Bathing*, and has at this Time, alas! thruſt it almoſt out of Doors; whereby many Diſorders remain uncured, not to ſay, the true and juſt Practice of Phyſic diſhonour'd.

WHO can diſpute the great Efficacy of *Bathing*, when he reflects on that Foreſt of Crutches, which was heretofore ſuſpended by Numbers, to whom *Bathing* had rendred them uſeleſs?

I THINK it very remarkable, that Dr. *Gui-*

Dr. *Guidot* ſhould cure twenty-five Paralyticks out of Thirty by *Bathing* only. To tranſcribe all the Caſes which have been reliev'd by it, and recorded by the Doctors *Venner*, *Maplet*, *Guidot*, *Peirce*, *Oliver*, &c. would be encroaching on the Reader's Time and Patience, and ſwell this Eſſay beyond my firſt Intention.

SWEATING is procured by two different Methods, (ſays *Celſus*) either by *Dry Heat*, or *Liquid Bathing*. The firſt, by the Ancients, was perform'd by the Application of hot Sand, by Steams of ſulphurous Earth, by ſitting in the Sun, by hot Air in that Apartment of their Baths call'd *Hypocauſtum*, in imitation of which I find a Caſe communicated to the *Royal Society* by *Paul Dudley*, Eſq;

(*w*) "IN

(w) " In the Year 1704, *P. Coffin*, " Eſq; of *Exeter* in *New-England*, " being then Seventy-four Years old, " by drinking cold Water in a very " hot Day, after he had heated him- " ſelf in the Woods, got a Surfeit, " which ſettled principally in his right " Side, but gave him a racking Pain " all over his Body, and particularly " depriv'd him of the Uſe of his right " Arm. In this Condition he kept " his Bed for nine Weeks, and his " Recovery was deſpair'd of, till his " Son, from whom I had the Rela- " tion, propos'd ſweating of him in " Turf: The Father readily agreed " to it, after having uſed many Me- " dicines without any Effect, and " Orders were immediately given to " cut a large Oven full of Turf. The " Pieces were about eighteen Inches

(w) *Vid. Philoſophical Tranſactions abridged*, Vol. VII. Part IV. pag. 972.

" ſquare

" ſquare of *Engliſh* Graſs, and only
" the Swerd, or Top of the Earth
" with the Graſs. Before the Turf
" was put into the Oven, the Doctor
" rubbed the graſſy Side of the Turf
" with ſome Spirit, or Oil, and then
" doubled the Graſs Sides together;
" after about two Hours baking, he
" took them out, and having made
" a Bed of them upon the Floor, and
" then order'd his Father, without
" his Shirt, but wrapp'd up in a
" Sheet, to be laid upon it, and to
" be cover'd over with the reſt of the
" Turf, more eſpecially on the Side
" where the Seat of his Pain was,
" but none to be laid on his Breaſt,
" or his Head; then they cover'd
" him with Blankets to keep the Heat
" in, and gave him warm Cordials to
" keep him from fainting, which he
" was in great danger of. After he
" had lain thus about three Quarters
" of an Hour, which was as long as
" he could bear it, he was put naked

"into a Bed made very warm, where "in a few Minutes he fell aſleep, and "ſweated to that Degree, that it run "through his Pillow and Bed upon "the Floor. After about two Hours "Sleep, they dry'd him, and put "him on warm Cloaths, and he "found himſelf much eas'd and re-"freſh'd. This was in the Morning, "and before Night he walk'd a-"bout the Houſe, his Pain being "in a manner all gone. Next Day "the Doctor repeated his Cordials; "and the fourth Day he ſweated him "a ſecond Time, in the ſame Man-"ner; and the fifth Day he went a-"broad about his Buſineſs, and lived "eleven Years afterwards in perfect "Health, and free from Pain."

So far of *Dry Bathing*. I ſhall now give you a Caſe of *Liquid*, which came under my Care and Inſpection above a Year ago.

Mr. *Bap-*

Mr. *Baptiſt Nunn*, of *Windſor* Foreſt, aged Sixty-three, (the grand Climacteric) after having been afflicted with the Gout near twenty Years, was in *October* 1741. ſeized with a moſt acute Paroxyſm, which laſted eleven Weeks, attended with violent Pains: At the going off of which, he complain'd, at firſt of a Numbneſs in the extream Parts, and in a few Days after entirely loſt the Uſe of them, in a Degree equal to a Palſy: He continued in this unhappy Condition near two Months; and had the Prognoſis of his Phyſicians taken Place, he had remain'd incurable. In the *January* following (having had the Fortune to cure an Ulcer in his Leg before, and ſoon after that the Loſs *(x)* of Voice) I was applied to; and, on examining the Parts affected,

(x) N. B. I attribute the Cure of his Loſs of Voice to a Pair of Scapulary Iſſues which I made him.

I found them cold and emaciated, notwithſtanding the Feet and Ancles were indurated, and the Tendons contracted: Whence I judg'd, that ſome condenſed Matter was lodged on them, I mean the Recrements of the Gout; and being confirm'd in my Opinion, that the local Atrophy was caus'd by the Diſtention of the Glands thro' the gouty Matter, which, preſſing on the arterial Tubes, interrupted the free Circulation of the Blood, and animal Spirits; I adviſed him to *bathe* the Parts affected in warm Water, particularly ſuch as flow'd from a chalky Spring: To which ſome emollient Plants might give a greater Energy.

Since learned Men have been terrified as before ſaid, tho' without Reaſon, from ſuch-like Practice, I was not ſurpriz'd at the general Clamour of his well-meaning, tho' ignorant, Relations, who, believing it a moſt dangerous Operation, would have diſſuaded

diſſuaded him from it, had not I, ſince Reaſoning would have been miſplac'd, related to them various Caſes wherein it had ſucceeded, to my Knowledge.

The Patient on theſe Aſſurances conſented to my Propoſal; and accordingly the next Day he uſed the *Semicupium*, for I could prevail no further, all my Arguments were inſufficient to induce him to *univerſal* Immerſion: However, the next Night, with great Reſolution, he repeated the *half Bath* for a Quarter of an Hour; the firſt and ſecond Night he ſweated profuſely, after he was in Bed; on which, being deſirous not to weaken him too much, or too ſuddenly, I order'd his future Stay in the warm Water ſhould be no longer than five Minutes, to which he adher'd for the Space of fourteen Days.

The Obſervations my Patient made were

were theſe, that on the fifth Night he felt an agreeable Warmth in his lower Limbs, and their Senſation and Motion being then in ſome Degree reſtor'd, he in a few Days quitted Bathing, and return'd with Strength and Vigour to the Uſe of ſtrong Exerciſe, even ſuch as Hunting, to the great Surprize of many People of Faſhion who frequented the Foreſt.

He lived near ſix Months after in perfect Health, and died a violent Death, *viz.* by a Fall from his Horſe.

Having before appriz'd you of the great Skill and Caution to be uſed with regard to Veneſection, the nice Diſtinction that ſhould be made between the *inflammatory* and *recent* Gout, and ſuch as is become *confirm'd* and *habitual*, ſo as to render the Judgment when to uſe and when to reject *Bleeding*, extreamly difficult and precarious; and having totally condemn'd

demn'd Salivation, and after deſcrib'd the great Advantage of *warm Bathing*; I proceed to lay before you an Operation, which I conceive to be of uſe in every Degree, and every Stage of the Gout, that is, *Fontanellæ*, or Iſſues. Theſe act in two moſt advantageous Manners; for they not only throw off and *deſpume* the immediate incumbent Matter, but prevent and *intercept* the future Influx of noxious Humours.

It is eaſy to comprehend, that had Mankind follow'd the original Dictates of Nature *(y)*, and the firſt Denunciation of the Almighty on new fallen Man, *in the Sweat of thy Face ſhalt thou eat Bread*, we ſhould in ſome Degree have *inverted* and profited of the Curſe; for by *Temperance* and Exerciſe the Blood would be ſo refin'd, as not to admit the Diſeaſe I

(y) Natura eſt paucis contenta.

have

have choſen to treat of in this Eſſay.

But ſince from the *French* (as the *Romans* did from the *Greeks*) this Nation has borrow'd both Luxury and Lazineſs, without which no Man can be call'd Polite, the Conſequence is, that more offenſive Bodies muſt daily be taken into the Blood, than can be diſcharg'd by the *Emunctories* and Outlets already form'd by Nature.

What then ſo reaſonable, ſo obvious, as to call in foreign Aid; and what Aids can ſo ſafely and commodiouſly ſuccour us, as thoſe *artificial* Drains, or Sluices, *Iſſues?*

In this Diſeaſe the Place I ſhould recommend, above any other in the whole Body, is between the (z) *Gaſtrocnemii* Muſcles, which I beg Leave to call *Poplitæan Iſſues.*

(z) See the *Plate.*

I for-

I FORBEAR to inſiſt on ſo obvious a Truth, that ſince all Fluids are known to *gravitate*, a depending Part muſt prove of the greateſt Benefit and Advantage; for this Interſtice is not only the largeſt of any, but has a Communication with all Parts of the Body.

THE Female Sex inherit a natural Diſcharge, to which ours are not entitled, the which in a great Meaſure frees them from this Diſtemper, unleſs it comes *hereditarily (ex dono Parentum)*. This was long ago obſerved by *Hippocrates*, who ſays *(a)*, *Mulier non laborat Podagra, niſi ipſi Menſes defecerint*. Hæmorrhoids in Men have have been found critical not only in this, but many other chronical Diſeaſes; but I have met with only one Caſe of their being uſeful in Wo-

(a) Aphoriſm 29. *Sect.* 6.

men: This being very ſingular, Mr. *J. Young* communicated it to the *Royal Society*. He ſays, "At *Limmerton*, fifteen Miles from *Plymouth*, a Woman had her *Menſes* "till ſhe was Seventy, plentiful and "regular, at which Time they ceas'd. "Soon after follow'd the like Efflux "from the Hæmorrhoids, which con-"tinued till ſhe was paſt Eighty.

"He obſerves, when the Flux ceas'd "ſhe became Gouty; and about one "Year before ſhe died there aroſe an "Apoſtumation on one of her Wriſts, "which open'd, diſcharg'd much "chalky Matter and ſome Stones. "She was never ſick but once before "the hæmorrhoidal Flux ſtopt, and "was always healthful and ſtrong, of "a vigorous Aſpect, ſmooth, plump, "and florid in Countenance, like one "not half ſo old, and had her Sight "ſo perfect, that to the laſt ſhe could "thread her Needle without Specta-"cles.

FROM hence I deduce this practical Inference, that conſidering the great Hazard and Danger the Sex are ſubject to, on the natural going off of their *Catamenia*, it would be of great Prevention, at leaſt, to have *Fontanells* cut a Year, or more, before their uſual Time of ceaſing, that is, about Forty-five.

I CANNOT entirely agree with Dr. *Cheyne*, who aſſerts, that the general Freedom from the Gout in Women is owing to the Laxity of their Veſſels; but as I regard this monthly Evacuation to equal all their other Excretions, it muſt diſcharge their redundant Humours.

RIVERIUS has given us a Caſe, which may ſerve to ſhew the happy Effects of *Iſſues*, which for the Reader's Emolument I ſhall here deſcribe:

" A CERTAIN Perſon had been af-
" flicted for a long Time with a Pain
" in his Back; ſome Time before
" his Death he had an Iſſue made
" four Fingers breadth above Knee,
" which diſcharg'd a large Quantity
" of true *Pus* or Matter. The Per-
" ſon being open'd after his Death,
" there was a large Quantity of Mat-
" ter found in his Lungs, and a great
" Apoſtumation in his Back, from
" whence his Pain proceeded, with a
" Channel extending from the Apo-
" ſtem to the Iſſue."

IT ſeems to me, that the very ſame Sort of *Pus*, or Matter, was diſcharged by the Iſſue, as that which was contain'd in the Apoſtem of his Back; and I could have wiſh'd that Iſſues had not been delay'd as the laſt Remedy, (as they too often are) and more particularly made in the Place beforemention'd, inſtead of a-

bove

bove the Knee; for then the Diſcharge muſt have been much greater, becauſe the *Sulcus*, or Interſtice, is larger, and is found to have a Communication with all Parts of the Body, as before ſaid.

After juſt remarking that to me ſome *critical* Tumours (ſuch as one mention'd *Page* 22, from Dr. *Havers*) ſeem to correſpond with the Effects of theſe *artificial* Outlets, I ſhall beg Leave, by way of Digreſſion, to give you one Inſtance of the many, which for theſe eight Years paſt have come to my Knowledge, of the Benefit of Iſſues, after healing Ulcers in the Legs.

These Ulcers, at my coming to this Place and ſince, have offer'd in more than a hundred Patients, and ſcarce one of them, altho' they are the moſt obſtinate Caſes in Surgery, fail'd of a Cure. Many, thro' the prevailing Averſion to *Iſſues*, have with great

Difficulty

Difficulty conſented, and ſome have been ſo obſtinate as to reject the Operation, till the Pains and Ulcerations have begun to return, and their Legs were infeſted with Ulcers as before; ſo that I have been oblig'd to begin the Cure *de novo*, which having effected, I have *then* cut a *Poplitæan* Iſſue, which always had ſo good an Effect, that the Patient continued well ever afterwards.

The introducing this Subject in this Place, will be more eaſily excus'd (I flatter myſelf) when we conſider the fatal Diſorders which often are the Conſequence of curing Ulcers in a depending Part; to prevent which there is no Method ſo certain, ſo much to be relied on, as *that of Iſſues.*

Mrs. ——, about fifty Years of Age, ſoon after the Benefit of Nature had left her, was afflicted with an Ulcer in her Leg, it was ſituated above

the

the Ancle-Bone, the uſual Reſidence of theſe Ulcers. It was five Years after the firſt Eruption before I ſaw it; her Pains were ſo acute and intenſe, as, to uſe her own Expreſſion, exceeded thoſe of hard Labour. On the ſecond of *December* 1735 I firſt attended her, and by the twenty-fifth of *January* following ſhe was cured; and then, in order to prevent a Relapſe, which too frequently happens, I propos'd to her an Iſſue in the Part deſcrib'd, with which ſhe did not then comply; but after two Months, the Leg beginning to grow every Day more and more painful, ſhe willingly conſented to the Operation, which ſoon relieved her of her Pain, and her Leg remains to this Day ſound, and perfectly eaſy.

In ſome arthritic Caſes of the firſt Magnitude, I have, within theſe four Years, made uſe of theſe Sort of Iſſues, of which I never had occaſion to repent;

repent; for thenceforward I obſerv'd the Fits every Seaſon conſiderably leſs, the Inflammation, Pain, and Swelling very much abated, and the Perſon, during the Intervals, much more ſprightly, chearful, and athletic than before.

The late eminent Phyſician, Dr. *Robert Burd* (whoſe many and great Favours, I take this Opportunity of acknowledging to the World) always aſſured me that he found great Relief by *this* Operation.

Having ſpun out this Work to a greater Length than I intended it; I ſhall not trouble the Reader with a Recital of more Inſtances. It is not only ſufficient for my preſent Purpoſe, but alſo extreamly agreeable to me, to find ſeveral Surgeons thoroughly vers'd in Practice, famous in their Times, agreeing in their Recommendation of theſe *Iſſues* in the Gout.

I have

I HAVE inſiſted the more on the Interſtices of the *Gaſtrocnemii* Muſcles as the moſt convenient and proper Place for theſe Drains, becauſe I find all Writers on this Subject *indefinite*.

I SHALL give you their Sentiments in their original Dreſs: —— *Spigelius* ſays thus, "*Cauteria ſeu fonticu-*
"*di a multis in hoc caſu commendan-*
"*tur; cruris internæ parti vel ſupra*
"*vel infra genu in utroque loco com-*
"*mode ponuntur: Si a pituita & bile*
"*oriatur (podagra ſc.) ut plerumque*
"*ſolet, & jam ſæpius hominem invaſe-*
"*rit, multi fonticulo facto ſanitatem*
"*priſtinam ſunt adepti.*"

"THOMAS ERASTUS, *in diſputa-*
"*tione contra Paracelſum, meminit*
"*cujuſdem Chirurgi fæliciſſimi An-*
"*dreæ Peruſini Romani, qui quam-*
"*plurimos Podagricos annis retro e-*

" *lapſis per Cauteria, ſeu Fontanellas,*
" *curavit.*"

JOANNES RIOLANUS is explicit as to the Locality of theſe Iſſues, particularly in Caſes of the Hip Gout: His Words are; " *Coxariis applicandum*
" *eſt Cauterium quatuor digitis infra*
" *Genu.*" But as another Author, well known to the Learned, who has given an exact Deſcription of the Circulation of the Blood, (long before the perfect Diſcovery of it by the immortal *Harvey*,) is prov'd by Dr. *Freind*, and allow'd by all, not to have underſtood his own Words; ſo I conjecture that *Riolanus*, tho' he ſays, *quatuor digitis infra genu*, might not intend the Interſtices of the Muſcles before-named.

MATTHIAS GLANDORP: " *Sic &*
" *ſæpiſſima ac reiterata evacuatione*
" *(Fonticulorum ſc.) hujus morbi tolli-*
" *tur cauſa, non vero vi; at ſi materia*
" *ſit*

" *ſit copioſior quam quod unus Fonti-*
" *culus eandem haud poſſit abſumere*
" *ac evomere, alius adjungendus; por-*
" *ro hæ Fontanellæ non tantum ſer-*
" *viunt præſervationi, ſed & Curatio-*
" *ni, quatenus intemperiem alterant.*"

A MORE extenſive Encomium on this ſalutary Practice appears to me quite needleſs; the Subject is in its own Nature ſo ſelf-evident, that I am aſham'd to purſue it.

THERE is no one of the Operations recommended by me in this Eſſay, but may, ſhould they be improperly apply'd, not only fail of Succeſs, but do great Miſchief, to guard againſt which, I leave it to every one's Diſcretion; which will of Courſe direct him to conſult ſome learned and able Phyſician. As I think that incomparable Aphoriſm of *Hippocrates*, may, with great Fitneſs and Congruity, be apply'd to this Doctrine of *Iſſues*, as co-

co-assistant in the Cure of the Gout; give me Leave to conclude with it.

(b) "THE Courses of those Things "which tend where they ought not, "should be changed; but if they tend "where it is convenient, Way ought "to be made for them, that they "may tend the more readily *thither*.

(b) "Revellenda ea, quæ, quò non oportet, re-"punt; sin autem quò convenit, iis viam sternere "oportet, ut singula eò vergant.

FINIS.

MVSEVM BRITAN NICVM